What is claimed is:

[Claim 1] 1. A liquid crystal display device comprising:

a liquid crystal display panel;

a light source for providing light beams to irradiate the liquid crystal display panel; and

an optical sheet positioned between the liquid crystal display panel and the light source and having a first surface facing the light source, the first surface having a plurality of prisms for totally reflecting portions of ambient light beams that have passed through the liquid crystal display panel to irradiate the liquid crystal display panel.

[Claim 2] 2. The liquid crystal display device of claim 1 wherein each of the prisms is a symmetric structure or an asymmetric structure.

[Claim 3] 3. The liquid crystal display device of claim 2 wherein each of the prisms comprises a first plane and a second plane for totally reflecting portions of the ambient light beams that have passed through the liquid crystal display panel.

[Claim 4] 4. The liquid crystal display device of claim 3 wherein the optical sheet comprises a second surface facing the liquid crystal display panel.

[Claim 5] 5. The liquid crystal display device of claim 4 wherein a is an included angle between a normal of the second surface and the first plane of each prism, and $a=90°-\sin^{-1}(n_1*\sin(b)/n_2)-c$, wherein b is an incident angle of the ambient light beams when the ambient light beams are incident on the second surface of the optical sheet, $c=\sin^{-1}(n_1/n_2)$, n_1 is a refractive index of an ambient environment, and n_2 is a refractive index of the optical sheet.

[Claim 6] 6. The liquid crystal display device of claim 5 wherein b is less than or equal to 60°.

[Claim 7] 7. The liquid crystal display device of claim 5 wherein d is an included angle between the normal of the second surface and the second plane of each prism, and $d=45°+[\sin^{-1}(n_1*\sin(f)/n_2)-a+c]/2$, wherein f is a refraction angle of the ambient light beams when the ambient light beams leave the second surface of the optical sheet.

[Claim 8] 8. The liquid crystal display device of claim 7 wherein f is less than or equal to 60°.

[Claim 9] 9. The liquid crystal display device of claim 1 wherein the optical sheet is a diffusing sheet.

[Claim 10] 10. The liquid crystal display device of claim 9 wherein the optical sheet comprises polycarbonate (PC), polyethylene terephthalate (PET) or polymethyl methacrylate (PMMA).

[Claim 11] 11. The liquid crystal display device of claim 1 wherein the optical sheet is a polarizer.

[Claim 12] 12. A liquid crystal display device comprising:

a liquid crystal display panel; and

an optical sheet having a first surface facing the liquid crystal display panel and a second surface opposed to the first surface, the second surface being a rough surface for totally reflecting portions of ambient light beams that have passed

through the liquid crystal display panel to irradiate the liquid crystal display panel.

[Claim 13] 13.The liquid crystal display device of claim 12 wherein the second surface comprises a plurality of prisms.

[Claim 14] 14. The liquid crystal display device of claim 13 wherein each of the prisms is a symmetric structure or an asymmetric structure.

[Claim 15] 15. The liquid crystal display device of claim 14 wherein each of the prisms comprises a first plane and a second plane for totally reflecting portions of the ambient light beams that have passed through the liquid crystal display panel.

[Claim 16] 16. The liquid crystal display device of claim 15 wherein a is an included angle between a normal of the first surface and the first plane of each prism, and $a=90°-\sin^{-1}(n_1*\sin(b)/n_2)-c$, wherein b is an incident angle of the ambient light beams when the ambient light beams are incident on the first surface, $c=\sin^{-1}(n_1/n_2)$, n_1 is a refractive index of an ambient environment, and n_2 is a refractive index of the optical sheet.

[Claim 17] 17. The liquid crystal display device of claim 16 wherein b is less than or equal to 60°.

[Claim 18] 18. The liquid crystal display device of claim 16 wherein d is an included angle between the normal of the first surface and the second plane of each prism, and $d=45°+[\sin^{-1}(n_1*\sin(f)/n_2)-a+c]/2$, wherein f is a refraction angle of the ambient light beams when the ambient light beams leave the first surface of the optical sheet.

[Claim 19] 19. The liquid crystal display device of claim 18 wherein f is less than or equal to 60°.

[Claim 20] 20. The liquid crystal display device of claim 12 wherein the optical sheet is a diffusing sheet.

[Claim 21] 21. The liquid crystal display device of claim 20 wherein the optical sheet comprises polycarbonate, polyethylene terephthalate or polymethyl methacrylate.

[Claim 22] 22. The liquid crystal display device of claim 12 wherein the optical sheet is a polarizer.

[Claim 23] 23. The liquid crystal display device of claim 12 further comprising a light source for providing light beams to irradiate the liquid crystal display panel, and the optical sheet being positioned between the liquid crystal display panel and the light source.